To improve the above mentioned drawbacks, the applicant has developed a new design which consists of at least a cable with a central core (former) around which superconducting tapes are spirally placed, on at least two [lawyers] layers with a laying angle defined by the characteristic that some of the layers adjacent to the core are twisted in a sense and the other, [perifpheral] peripheral part of the [laywer] layers is twisted [tot eh] to the opposite side. Twist pitches of the layers vary from maximum [P_{mazl}] P_{max1} and P_{max2} in medium layers to minimum P_{min1} and P_{min2} in inner and outer layers, while twist angles of the tapes in the layers vary from α_{max1} to α_{min1} and from α_{max2} to α_{min2} and at least one layer [oftapes] of tapes from normally conducting metal is located between the outer surface of the former and the inner surface of the layer,

where for inner layers:

P_{min1} and [V_{max1}] α_{max1} - minimum pitch and maximum twist angle of tapes in the first layer made of superconducting tapes from the cable axis:

P_{mazl} and α_{min1} - maximum pitch and minimum twist angle of tapes in the [last] layer from the cable axis layer made of superconducting tapes of the part of layers adjacent to the [former] central core and having one direction of lay;

for outer layers:

P_{min2} and α_{max2} - minimum pitch and maximum twist angle of tapes in the first layer are made of superconducting tapes from the cable axis;

P_{max2} and α_{min2} - maximum pitch and minimum twist angle of tapes in the [first] layer from the cable axis layer made of superconducting tapes of the second part of layers with opposite